

Amendments to the Specification

Please replace paragraph [0002] with the following amended paragraph:

[0002] This invention was made, ~~at least in part, with government support funding received from the U.S. Department of Energy under grant DE-FG02-02ER63410.000 by the Department of Energy.~~ The U.S. government ~~may retain~~ has certain rights in this invention.

Please replace paragraphs [0030] and [0031] with the following amended paragraphs:

[0030] Figures 16A-C show the calculated hybridization energies for folding-derived and modified *BaPag*668-706 beacons. Figure 16A shows the same secondary structure as in Figure 4A (SEQ ID NO: 2). The termini of probe *BaPag*668-706 was extended by the self-complementary sequence [d(CGACG)]₂ (SEQ ID NO: 11), then the hybridization energy calculated (Figure 16B). Five bases were removed from each end of *BaPag*668-706, replaced with [d(CGACG)]₂, and the hybridization energy again calculated (Figure 16C). *BaPag*673 corresponds to *BaPag*668 with 5 bases removed from each end (SEQ ID NO: 12). The complementary sequence of *BaPag*668-706, in 5' to 3' orientation, is AAAGAAAGTGGTACCT AAAGATTATAAGTACTTTCTTT also shown (SEQ ID NO: 7). In each case, calculated $\Delta\Delta G$ was less favorable for the modified beacons than for the probes derived directly from folding.

[0031] Figures 17A-C show the calculated hybridization energies for folding-derived and modified *BaPag*1208-1241 beacons. Figure 17A shows the same secondary structure as in Figure 4B (SEQ ID NO: 3). The termini of probe *BaPag*1208-1241 was extended by the self-complementary sequence [d(CGACG)]₂ (SEQ ID NO: 13), then the hybridization energy calculated (Figure 17B). The complementary sequence of *BaPag*1208-1241, in 5' to 3' orientation, is AGCAATCACAAATCCTTTAGTTGTGAGCGCT also shown (SEQ ID NO: 8). Five bases were removed from each end of *BaPag*1208-1241, replaced with [d(CGACG)]₂ (SEQ ID NO: 14), and the hybridization energy again calculated (Figure 17C). *BaPag*1213 corresponds to *BaPag*1208 with 5 bases removed from each end. In each case, calculated $\Delta\Delta G$ was less favorable for the modified beacons than for the probes derived directly from folding.

Please enter the accompanying Sequence Listing into the specification.